



Sawmill Technical Assistance



Sawmill technical assistance is available from the Technology Marketing Unit (TMU) of the USDA Forest Service, Forest Products Laboratory. Although assistance is generally limited to responding to technical lumber manufacturing inquiries, onsite assistance is considered at the request of your State forest products utilization and marketing specialist. Sawmill layout, design, construction, and other in-depth studies are referred to consultants.

Hardwood Sawmilling

Improving efficiency is the focus of TMU's assistance to hardwood mills. Recommendations for grade sawing hardwood logs and tightening up mill performance are provided. TMU can suggest appropriate log breakdown processing technologies and manufacturing methods. The TMU can also provide assistance in assessing the feasibility of integrating operations with lumber drying and secondary lumber processing.

Small-Log Processing

Today's state-of-the-art small-log sawmill incorporates scanning and computer sawing decisions, single-pass processing systems, curve-sawing technology, and other precision manufacturing technologies. Turnkey cost for today's small-log sawmill is a substantial investment. Increasing production rates, maximizing lumber recovery, and minimizing production costs are keys to profitability. On a smaller scale, single-pass small-log scragg mills and resaws are available. The TMU can offer recommendations on appropriate small-log softwood processing technologies and manufacturing methods.

Lumber Size Control

Lumber size control is a quality control technique developed to help identify and locate problems in primary and secondary breakdown systems in sawmill operations. This is useful in troubleshooting, setting maintenance priorities, and determining when adjustments to a breakdown system are necessary or when to leave the process alone. Benefits of size control include improved process performance and lumber quality, resulting in reduced unit costs and increased productivity. The TMU can provide assistance, in coordination with your State utilization and marketing specialist, for studying lumber size variation and target sizing.

Lumber Recovery and Grade Yield

The TMU participates with State utilization and marketing specialists in conducting lumber recovery and grade yield mill studies. These study results provide measures of log breakdown conversion efficiency and help identify opportunities for mill improvement. Manufacturing costs and market prices can be used with mill study recovery data to analyze potential sawmill improvement project feasibility. Mill study data, mill identification, and other sensitive business information are kept confidential. However, study results, conclusions, recommendations, and insights are subject for use by the USDA Forest Service in advancing improved utilization and mill efficiency.

Computer Sawing Simulation

Lumber recovery in softwood dimension mills can be simulated using computer software. Computer sawing simulations help sawmill operators estimate potential lumber product recovery and value. Simulation results can be compared with actual results from lumber recovery studies to identify potential areas of improvement. The TMU can provide assistance with computer sawing simulations for sawmill and resource assessment studies.